WHAT IS CLAIMED IS:

1. An electrosurgical instrument for removing target tissue, comprising:

a shaft including a shaft distal end portion and a shaft proximal end portion, the shaft having a longitudinal void therein;

a tissue removal port disposed at the shaft distal end portion;

an elongate rotating member housed longitudinally within the longitudinal void of the shaft, the rotating member adapted to rotate within the shaft, the rotating member coupled to a drive motor for driving rotation of the rotating member;

a discrete active electrode disposed at the instrument distal end, the active electrode adapted to electrosurgically remove at least a portion of the target tissue via molecular dissociation of target tissue components as the rotating member rotates within the shaft;

an active electrode lead extending proximally from the active electrode and disposed internal to the shaft distal end portion; and

a return electrode disposed at the instrument distal end.

2. The instrument of claim 1, wherein the active electrode is disposed on a distal end of the rotating member.

3. The instrument of claim 2, wherein the return electrode is disposed on the distal end of the rotating member or on the shaft distal end portion.

4. The instrument of claim 1, wherein the active electrode is disposed on the shaft distal end portion.

5. The instrument of claim 4, wherein the return electrode is disposed on the shaft distal end portion or on a distal end of the rotating member.

6. The instrument of claim 1, further comprising an aspiration unit including an elongate aspiration lumen in communication distally with an aspiration port.

7. The instrument of claim 6, wherein the aspiration port is in fluid communication with the tissue removal port.

8. The instrument of claim 1, further comprising a coagulation electrode disposed at the instrument distal end.

9. The instrument of claim 1, wherein at least one of the active electrode and the return electrode is adapted for coagulating tissue or a blood vessel.

10. A method for the controlled removal of a target tissue at a surgical site, comprising:

a) providing an electrosurgical instrument, the instrument including a shaft having a shaft distal end portion, a tissue removal port disposed at the shaft distal end portion, an elongate rotating member housed longitudinally within the shaft, the rotating member adapted to rotate within the shaft, a discrete active electrode disposed at the instrument distal end, an active electrode lead extending proximally from the active electrode and disposed internal to the shaft distal end portion, and a return electrode disposed at the instrument distal end;

b) positioning the instrument distal end with respect to the target tissue such that the tissue removal port lies in at least close proximity to the target tissue;

c) driving the rotating member via a drive motor such that the rotating member rotates within the shaft; and

d) during said step c), applying a high frequency voltage between the active electrode and the return electrode, wherein the active electrode is adapted for electrosurgically removing the target tissue via molecular dissociation of target tissue components as the rotating member rotates within the shaft.

11. The method of claim 10, wherein the said step b) comprises positioning the shaft distal end portion at or within a synovial joint of the patient.

12. The method of claim 10, wherein the target tissue comprises articular cartilage, meniscal cartilage, a ligament, or a tendon.

13. The method of claim 10, wherein the voltage applied in said step d) is in the range of from about 200 volts RMS to 1500 volts RMS.

14. The method of claim 10, wherein said step c) comprises driving the rotating member at a speed in the range of from about 20 rpm to 90 rpm.

15. The method of claim 10, further comprising:

e) during said steps c) and d), manipulating the probe such that the tissue removal port is translated with respect to the target tissue.

16. The method of claim 10, wherein said steps c) and d) generate fragments of resected tissue and gaseous ablation by-products, and the method further comprises:

f) aspirating the fragments of resected tissue and gaseous ablation by-products via an aspiration unit, wherein the aspiration unit is integral with the instrument.

17. An electrosurgical instrument for removing target tissue from a patient, comprising:

a shaft including a shaft distal end portion and a shaft proximal end portion, the shaft having a longitudinal void therein;

an active electrode disposed on the shaft distal end portion;

a return electrode disposed on the shaft distal end portion and spaced from the active electrode;

a tissue removal port at the shaft distal end portion; and

a rotating member housed longitudinally within the longitudinal void of the shaft, the rotating member adapted to rotate within the shaft, the rotating member including a rotating member distal end, the rotating member distal end configured to traverse the tissue removal port as the rotating member rotates within the shaft, and the active electrode is adapted to remove the target tissue as the rotating member distal end traverses the tissue removal port.

18. The instrument of claim 17, wherein the active electrode is disposed on an external surface of the shaft distal end portion at a location adjacent to the tissue removal port.

19. The instrument of claim 17, wherein the active electrode is disposed adjacent a first location of the tissue removal port, and the return electrode is disposed adjacent a second location of the tissue removal port.

20. The instrument of claim 19, wherein the second location is spaced from the first location by a portion of the tissue removal port.

21. The instrument of claim 17, wherein the active electrode comprises a discrete electrode coupled to an active electrode lead, the active electrode lead extending proximally within the shaft, and the active electrode lead adapted for coupling the active electrode to an electrosurgical generator.

22. The instrument of claim 17, wherein at least a portion of the shaft is encased within an electrically insulating layer, and the active electrode comprises an exposed, non-insulated region of the shaft.

23. The instrument of claim 17, wherein the rotating member distal end is adapted to guide the target tissue towards the active electrode as the rotating member distal end traverses the tissue removal port.

24. The instrument of claim 23, wherein the active electrode is adapted to electrosurgically remove at least a portion of the target tissue via molecular dissociation of target tissue components as the target tissue is guided towards the active electrode.

25. The instrument of claim 17, wherein the rotating member distal end includes a leading edge adapted to guide the target tissue towards the active electrode, and wherein at least the leading edge of the rotating member distal end is electrically non-conducting.

26. The instrument of claim 17, wherein the rotating member distal end is adapted to provide friction between the rotating member and the target tissue.

27. The instrument of claim 17, wherein the rotating member is coupled to a drive motor for driving rotation of the rotating member within the shaft at a speed in the range of from about 20 rpm to 90 rpm.

28. The instrument of claim 17, further comprising a coagulation electrode disposed at the distal tip of the shaft.

29. An electrosurgical system for treating a target tissue, comprising:
an instrument which comprises:
a shaft including a shaft distal end portion and a shaft proximal end portion, the shaft having a longitudinal void therein;
a tissue removal port at the shaft distal end portion;
an elongate rotating member housed within the shaft and adapted to rotate therein, the rotating member having a distal end configured to traverse the tissue removal port as the rotating member rotates within the shaft;
an active electrode disposed at the shaft distal end portion, the active electrode adapted to electrosurgically remove a portion of the target tissue during each revolution of the rotating member; and
a return electrode disposed at the instrument distal end; and
an electrosurgical generator coupled to the instrument for applying a high frequency voltage between the active electrode and the return electrode, wherein the active electrode is adapted to electrosurgically remove at least a portion of the target tissue upon application of the high frequency voltage.

30. The system of claim 29, wherein the rotating member distal end is adapted to guide the target tissue towards the active electrode as the rotating member distal end traverses the tissue removal port.

31. The system of claim 29, further comprising a drive motor, wherein the rotating member is coupled to the drive motor via a flexible transmission line for driving rotation of the rotating member within the shaft

32. The system of claim 31, wherein the drive motor is integral with the electrosurgical generator.

33. The system of claim 29, wherein the active electrode is affixed to an external surface of the shaft distal end portion at a location adjacent to the tissue removal port.

34. The system of claim 29, wherein at least a distal portion of the rotating member has an arcuate cross-sectional shape.

35. A method of removing a target tissue of a patient, comprising:

a) providing an electrosurgical instrument, the instrument including a shaft having a shaft distal end portion, the shaft distal end portion having a tissue removal port therein, the instrument further including a rotating member adapted to rotate within the shaft, and an active electrode disposed on an external surface of the shaft distal end portion adjacent the tissue removal port, the rotating member distal end adapted to guide a portion of the target tissue towards the active electrode as the rotating member rotates within the shaft;

b) positioning the shaft distal end portion in at least close proximity to the target tissue;

c) rotatively driving the rotating member such that the rotating member distal end repeatedly traverses the tissue removal port; and

d) during said step c), applying a high frequency voltage between the active electrode and a return electrode, the active electrode adapted for removing tissue upon application of the high frequency voltage between the active electrode and the return electrode, whereby the target tissue is sequentially removed as the rotating member distal end repeatedly traverses the tissue removal port.

36. The method of claim 35, wherein during said steps c) and d), the target tissue is removed via molecular dissociation of target tissue components.

37. The method of claim 35, wherein the rotating member distal end includes a leading edge configured to traverse the tissue removal port as the rotating member rotates

within the shaft, and wherein during said steps c) and d), the active electrode is adapted to remove the target tissue as the leading edge traverses the tissue removal port.

38. The method of claim 35, wherein said step c) comprises driving the rotating member at a speed in the range of from about 20 rpm to 90 rpm.

39. The method of claim 35, wherein the target tissue comprises articular cartilage, meniscal cartilage, a ligament, or a tendon.

40. The method of claim 35, wherein said step d) comprises applying a radio frequency alternating-current voltage in the range of from about 200 volts RMS to 1500 volts RMS.

41. An electrosurgical instrument for removing target tissue, comprising:

a shaft including a shaft distal end portion and a shaft proximal end portion, the shaft having a longitudinal void therein;

a tissue removal port at the shaft distal end portion;

a rotating member housed within the longitudinal void of the shaft, the rotating member adapted to rotate within the shaft;

an electrode support extending distally from the rotating member distal end; and

an active electrode affixed to a distal end of the electrode support, the active electrode configured to traverse the tissue removal port as the rotating member rotates within the shaft, and the active electrode adapted to electrosurgically remove at least a portion of the target tissue as the active electrode traverses the tissue removal port.

42. The instrument of claim 41, wherein the electrode support comprises a glass, a ceramic, or a silicone rubber.

43. The instrument of claim 41, wherein the active electrode comprises an arcuate conductive element having a first distal end and a second proximal end, the first

end of the arcuate conductive element affixed to a distal end of the electrode support, and the second end of the arcuate conductive element affixed to the rotating member.

44. An electrosurgical instrument for removing target tissue, comprising:

a shaft including a shaft distal end portion and a shaft proximal end portion, the shaft having a longitudinal void therein;

a tissue removal port arranged laterally on the shaft distal end portion;

a rotating member housed within the longitudinal void of the shaft, the rotating member adapted to rotate within the shaft, the rotating member including a rotating member distal end; and

an active electrode extending distally from the rotating member distal end, the active electrode configured to traverse the tissue removal port when the rotating member rotates within the shaft, the active electrode adapted to electrosurgically remove at least a portion of the target tissue via molecular dissociation of target tissue components as the active electrode traverses the tissue removal port.

45. The instrument of claim 44, wherein the active electrode comprises an arcuate conductive element.

46. The instrument of claim 44, further comprising an electrode support, the active electrode affixed to the electrode support, and wherein the active electrode spans a void between a distal portion of the electrode support and the rotating member distal end.

47. The instrument of claim 44, wherein the active electrode comprises a curved length of a metal wire comprising a material selected from the group consisting of stainless steel, molybdenum, platinum, tungsten, palladium, iridium, titanium, and their alloys.

48. The instrument of claim 44, wherein the active electrode is a discrete active electrode having an active electrode lead coupled thereto, the active electrode lead adapted for coupling the active electrode to an electrosurgical generator.

49. An electrosurgical instrument for removing target tissue, comprising:

a shaft including a shaft distal end portion and a shaft proximal end portion, the shaft having a longitudinal void therein;

a tissue removal port arranged laterally on the shaft distal end portion;

a rotating member housed within the longitudinal void of the shaft, the rotating member adapted to rotate within the shaft, the rotating member having a non-circular cross-section and including at least one longitudinal edge; and

an active electrode disposed on the at least one longitudinal edge at the rotating member distal end, the active electrode configured to traverse the tissue removal port when the rotating member rotates within the shaft, and the active electrode adapted to electrosurgically remove at least a portion of the target tissue as the active electrode traverses the tissue removal port.

50. The instrument of claim 49, wherein the at least one longitudinal edge lies substantially parallel to the longitudinal axis of the rotating member.

51. The instrument of claim 49, wherein the at least one longitudinal edge comprises a first longitudinal edge and a second longitudinal edge lying substantially parallel to the first longitudinal edge.

52. The instrument of claim 49, further comprising an aspiration unit including an elongate aspiration lumen in communication distally with an aspiration port, wherein the aspiration lumen comprises a discrete tube disposed within a longitudinal groove of the rotating member.

53. A method of removing a target tissue at a surgical site, comprising:

a) providing an electrosurgical instrument, the instrument including an outer shaft having a tissue removal port at the shaft distal end, an inner rotating member adapted to rotate within the shaft, an active electrode disposed at the rotating member distal end, the active electrode configured such that at least a portion of the active electrode traverses the tissue removal port as the rotating member rotates within the shaft, and a return electrode disposed at the instrument distal end;

b) positioning the instrument distal end with respect to the target tissue such that the tissue removal port lies in at least close proximity to the target tissue;

c) driving the rotating member such that the rotating member rotates within the shaft; and

d) during said step c), applying a high frequency voltage between the active electrode and the return electrode, wherein the active electrode is adapted for electrosurgically removing the target tissue via molecular dissociation of target tissue components as the active electrode traverses the tissue removal port.

54. The method of claim 53, wherein said step b) comprises positioning the shaft distal end portion at or within a synovial joint, and wherein the target tissue comprises articular cartilage, meniscal cartilage, a ligament, or a tendon.

55. The method of claim 53, wherein the voltage applied in said step d) is in the range of from about 200 volts RMS to 1500 volts RMS.

56. The method of claim 53, wherein the voltage of said step d) is supplied from an electrosurgical generator coupled to the instrument, the electrosurgical generator includes an integral drive motor coupled to the rotating member, and said step c) comprises driving the rotating member, via the drive motor, at a speed in the range of from about 6 rpm to 600 rpm.

57. The instrument of claim 5, wherein the return electrode is disposed on the shaft distal end portion such that a distance between the active electrode and the return electrode is constant.

58. The instrument of claim 57 wherein the port has a curved shape.